

## ABSTRACT

### TITLE:

Internal combustion engine with supercharging and sparking plug with precombustion chamber, ignition method and application thereof.

### APPLICANT:

PEUGEOT CITROËN AUTOMOBILES SA

### INVENTORS:

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- 5 The invention concerns an internal combustion engine with at least one engine member, the engine member including a combustion chamber (4) of a combustible mixture with fuel components and oxidants, an ignition system of the combustible mixture by an igniter (7), sequential let-through devices for the fuel and oxidant components and for the combustion products, the engine being of the supercharging type by boost pressure of the oxidant components upstream of the engine member. According to the invention, the ignition system includes a closed head (6)(12a) substantially spherical enclosing the igniter in a precombustion chamber, the head including a set of orifices (5) intended to communicate the combustion chamber and the precombustion chamber so that combustible mixture may flow into the precombustion chamber. In a variation of the invention, at least one of the let-through devices is a direct injector in the combustion chamber for, in all or in part, the fuel components and/or fuels. A method and an application are also described.
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FIGURE 4